From: SCHROER, CRAIG [CSCHROER@idem.IN.gov]

Sent: 8/2/2017 7:05:41 PM

To: Pena-Molina, Ana [pena-molina.ana@epa.gov]; PBANSCH@idem.IN.gov; Mike Sickels [MSICKELS@idem.IN.gov];

WORKMAN, JEFF [JWORKMAN@idem.IN.gov]

CC: Blough, James [Blough.James@epa.gov]; Ramanauskas, Peter [ramanauskas.peter@epa.gov]; Lee, Jae

[lee.jae@epa.gov]; Shuster, Kenneth [Shuster.Kenneth@epa.gov]; Kuziomko, Joseph [kuziomko.joseph@epa.gov];

Kohler, Amanda [Kohler.Amanda@epa.gov]

Subject: RE: ORCR Summer Interns Project Regarding OB/OD Sites-Indiana

Flag: Follow up

Ana, Here are responses to your questions regarding OB/OD sites with the exception of question #8:

1. Did these sites complete clean closure or are they still in the process of seeking to clean close? Clean closed

- Did the state officially certify/approve the unit(s) Clean Closed (CC)? IDEM approved closure certification on 12/06/95 (VFC# 62600341)
- 3. What was the volume of waste disposed, frequency (e.g., daily, weekly, monthly, periodically), and years of operation? Up to 8,000 lbs/day; HM-1: 1980-82, Spring 1985, 1987; HM-2: 1985-1990
- 4. Was it OB or OD or both? Both. One of the two burn pits also contained detonation pits for treating blasting caps
- 5. What sampling procedures were used to identify the extent of the contamination, including kick-out and fallout (e.g., geophysical techniques used to identify buried munitions and fragments; trenching; grid, spokes, meandering way, visual, or random sampling of soil/for kick-out; depth; until no more found; and ground water monitoring)? Random soil sampling in and around both burn pits, visual observation, and confirmation sampling
- 6. Were components of the unit removed (e.g., any platforms, pans, pads, and liners)? Units appear to have been earthen pits without additional components
- What clean-up procedures and techniques were used to clean up the contaminants (e.g., excavation, soil sifting)? Excavation with confirmatory sampling
- 8. What data was recorded and metrics used to evaluate the extent and levels of contamination? We don't understand the question. Jeff Workman may be best to answer this question.
- What criteria was used to certify clean closure (e.g., EPA action levels)? Background for metals (mean plus 3 standard deviations)
- 10. What was the total cost to achieve Clean Closed (CC) status? Approximately \$170,000 based on the cost estimate in the closure plan

Note that all IDEM public records are available via the internal in the Virtual File Cabinet at http://www.in.gov/idem/legal/2363.htm. You can do a document search via the "Alternate Field," selecting "Hazardous Waste" and enter the EPA ID#.



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From: Pena-Molina, Ana [mailto:pena-molina.ana@epa.gov]

Sent: Monday, July 17, 2017 4:23 PM

To: BANSCH, PAULA <PBANSCH@idem.IN.gov>; SICKELS, MIKE <MSICKELS@idem.IN.gov>; WORKMAN, JEFF <JWORKMAN@idem.IN.gov>; SCHROER, CRAIG <CSCHROER@idem.IN.gov>

Cc: Blough, James <Blough.James@epa.gov>; Ramanauskas, Peter <ramanauskas.peter@epa.gov>; Lee, Jae

<lee.jae@epa.gov>; Shuster, Kenneth <Shuster.Kenneth@epa.gov>; Kuziomko, Joseph <kuziomko.joseph@epa.gov>;

Kohler, Amanda < Kohler. Amanda@epa.gov>

Subject: ORCR Summer Interns Project Regarding OB/OD Sites-Indiana

**** This is an EXTERNAL email. Exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email. ****

I am writing to seek information on the closure status of the Open Burn/Open Detonation (OB/OD) units listed below to assist ORCR in a new project to assess closure of OB/OD units. With this information, EPA will be able to identify, evaluate, and document procedures, techniques, and criteria to assess, clean up, and close OB/OD units/sites in a standardized manner.

EPA has been documenting soil and ground water contamination from OB/OD units and the costs to clean them up. Given the inordinate extent of contamination and costs of clean-up that have been reported, we are now seeking to learn more about the monitoring, clean-up procedures, successes, and costs of these efforts. There is currently no national guidance on procedures to assess, monitor, and clean up OB/OD sites, nor metrics to achieve clean closure of OB/OD units. We are requesting information on the clean closure (CC) of OB/OD sites to assist us.

Please first verify the following codes for your appropriate facilities in Indiana.

Indiana

FACILITY_ID	FACILITY_NAME	UNIT_NAME	UNITs	UNIT_DETAIL_SEQ	legal status	operating status	EFFECTIVE_DATE
IND000714832	DYNO NOBEL, INC	X01 OPEN BURNING	2	2	LI	CC	19951206

Questions:

We have a number of questions we hope you can answer regarding your clean closed/closing sites. The operating status of the facilities will determine which sets of questions are to be answered. We understand that some of this data may be difficult to find but we would really appreciate if you could dig it up for us as it will help us move forward with this project and eventually help EPA update OB/OD closing procedures.

Clean Closed (CC) Facilities' questions:

- Did these sites complete clean closure or are they still in the process of seeking to clean close?
- 2. Did the state officially certify/approve the unit(s) Clean Closed (CC)?
- 3. What was the volume of waste disposed, frequency (e.g., daily, weekly, monthly, periodically), and years of operation?
- 4. Was it OB or OD or both?
- 5. What sampling procedures were used to identify the extent of the contamination, including kick-out and fallout (e.g., geophysical techniques used to identify buried munitions and fragments; trenching; grid, spokes, meandering way, visual, or random sampling of soil/for kick-out; depth; until no more found; and ground water monitoring)?
- 6. Were components of the unit removed (e.g., any platforms, pans, pads, and liners)?

- 7. What clean-up procedures and techniques were used to clean up the contaminants (e.g., excavation, soil sifting)?
- 8. What data was recorded and metrics used to evaluate the extent and levels of contamination?
- 9. What criteria was used to certify clean closure (e.g., EPA action levels)?
- 10. What was the total cost to achieve Clean Closed (CC) status?

We plan to have a contractor gather this information on a select number of sites from the states. The purpose of this current effort is to gather information on the status of cleanup at these sites to help us identify which sites have the best information for our contractor to follow up with. Thus, for this effort, we seek answers to questions 1-4 and the last question in each set, and for the remaining questions we seek whether or not good information exists to answer these questions. We hope to receive this information by July 31st. Thank you for taking time to assist us with this project. If you have any questions, please feel free to reach out to us. Any information that you may be able to provide will be helpful in our project.

Sincerely,

Ana Pena-Molina 703-308-8753

U.S. EPA Headquarters Two Potomac Yard 2777 S. Crystal Drive Arlington, VA 22202-3553